Drell-Yan normalization cross-check

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Reminder

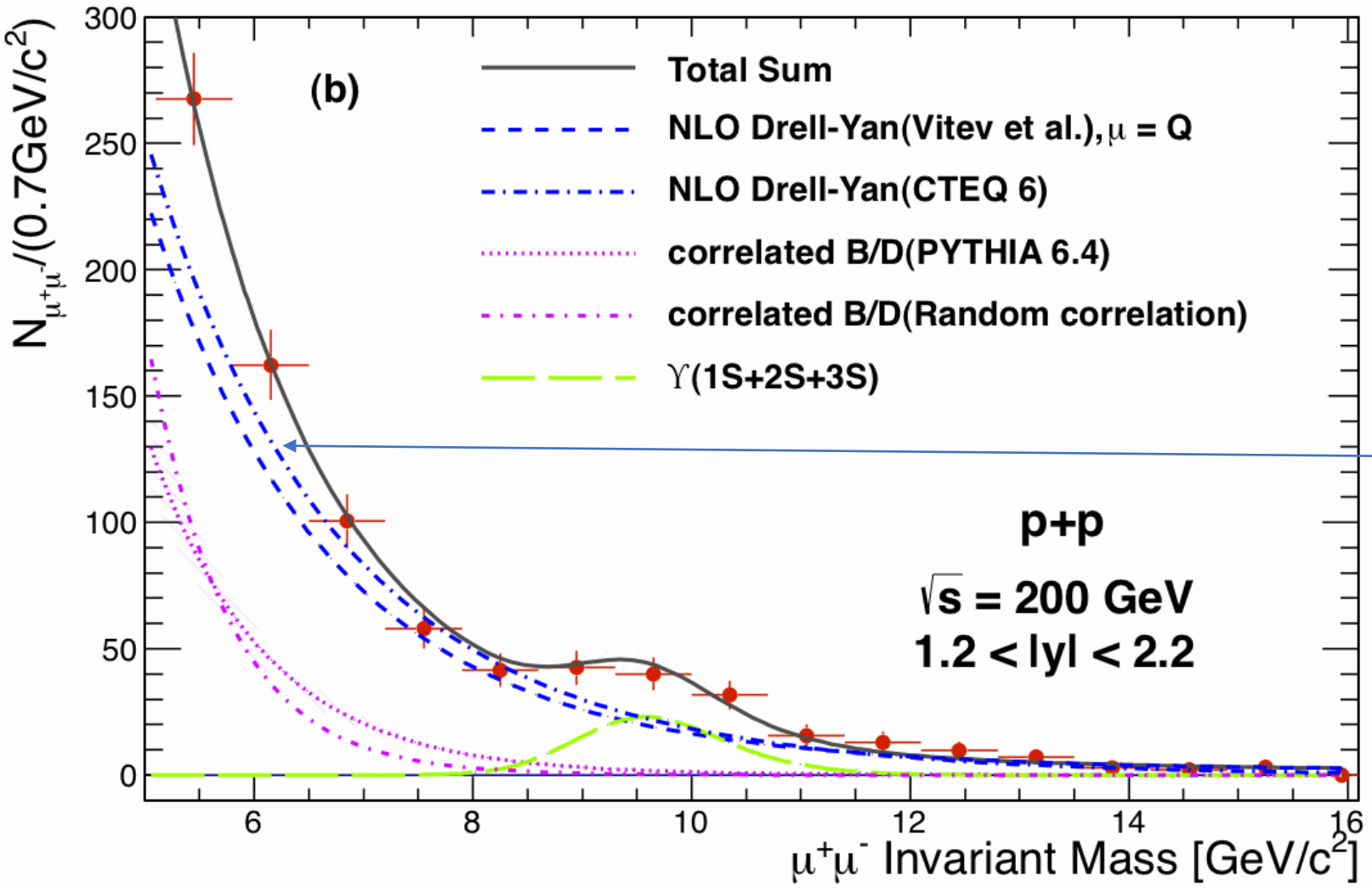
Last time I've shown calculation of correlated background under Y peak.

Scaling of PYTHIA cross-section was necessary for charm and bottom in order to reproduce the data (factor of >3).

What to do with Drell-Yan?

Compare to ppg142:
"Y(1S+2S+3S) production in d+Au and p+p collisions at $\sqrt{s_{NN}}$ = 200 GeV and cold-nuclear-matter effects", **Phys. Rev. C 87, 044909 (2013)**

ppg142



Cuts:

p > 2.7 *GeV/c*

$\frac{(p1-p2)}{(p1+p2)} < 0.6$

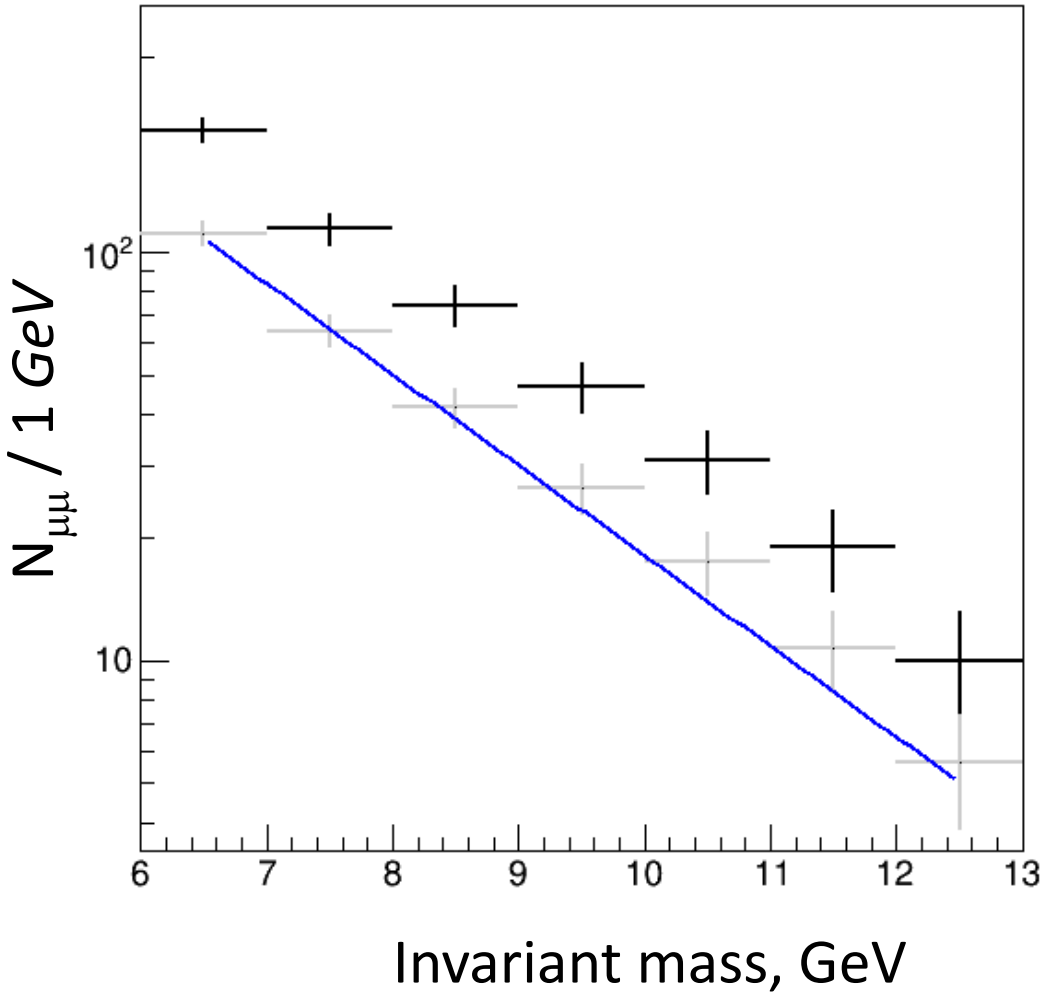
Trigger efficiency correction:

C = ε_{MB} / ε_{DY} = 0.69

$\frac{dN}{dm}$ x 0.7 *GeV/c* / C

Other cuts, tracking efficiency, dead areas?

The comparison



Blue line: NLO Drell-Yan from previous slide.

Black: my simulation with tracking efficiency (including dead areas) = 100%

Gray: single track inefficiency = 75%

Reasonable agreement with NLO pQCD and data.